

Gansler, International Partners Accept Initial Delivery of MIDS-LVT at Pentagon Ceremony

MIDS IPO, Led by Navy Capt. Dave Fitch, Completes Four-Year Effort to Deliver Nation's Most Advanced C³I System

COLLIE J. JOHNSON

"[MIDS] is an example of a program team accepting and managing risk. We accepted the challenge of changing the terminal architecture, using industrial parts, and accelerating the schedule for delivery of EMD terminals. We weren't 'shot at the break of dawn' when we missed our goal of 12 months' acceleration; instead, we were recognized and rewarded for the acceleration we did achieve, as well as the other things we accomplished. I think this is a positive message for DoD program managers."

—Navy Capt. Dave Fitch
MIDS Program Manager



NAVY CAPT. DAVE FITCH, MIDS PROGRAM MANAGER, IS CONGRATULATED BY UNDER SECRETARY OF DEFENSE (ACQUISITION AND TECHNOLOGY), DR. JACQUES S. GANSLER AT A PENTAGON CEREMONY ON MARCH 11. THE CEREMONY MARKED INITIAL DELIVERY OF THE MULTIFUNCTIONAL INFORMATION DISTRIBUTION SYSTEM LOW VOLUME TERMINAL (MIDS-LVT) TO MIDS CUSTOMERS.

Noel Longuemare called it a "tall order." Tony Valletta said it was "a standards setter on how electronics should be designed and how international programs should be done." Paul Kaminski described it as "one of the most important and significant international cooperative programs in our lifetime." And according to Jacques Gansler, it becomes "the first successful major cooperative development in the military electronics field."

These current and former senior acquisition executives were all commenting on DoD's largest international cooperative development effort — an extraordinarily successful program called MIDS — Multifunctional Information Distribution System.

MIDS, a command, control, communications and intelligence (C³I) program, is the next generation of Link-16 terminals and the DoD's first successful international cooperative development of a major electronics system. A tactical, secure, jam-resistant voice and data communications system, MIDS is fully interoperable with the earlier Link-16 system, the Joint Tactical Information Distribution System (JTIDS).

Showcased as a true acquisition success story, the program has gone through tremendous changes in scope, and technical

and programmatic requirements, while simultaneously accelerating program milestones.

As an outstanding example of Acquisition Reform at its best, the MIDS program

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F/A-18



RAFAELE



F-15 EAGLE



Photo courtesy The Boeing Company

EF2000



DoD Photos unless otherwise noted

ACCORDING TO MIDS PROGRAM MANAGER, NAVY CAPT. DAVE FITCH, IN THE FUTURE EVERY EF2000 OR RAFAELE THAT OUR ALLIES BRING TO A COALITION EFFORT WILL BE FULLY INTEROPERABLE WITH U.S. FORCES; AND EVERY EF2000 OR RAFAELE WILL BE ONE FEWER F/A-18, F-15, F-22, OR JOINT STRIKE FIGHTER NEEDED TO BE PROVIDED BY THE UNITED STATES.

team identified and implemented the widest possible array of Acquisition Reform initiatives in spite of the inherent difficulties in managing an international program. R. Noel Longuemare, former Principal Deputy Under Secretary of Defense (Acquisition & Technology) clearly understood those difficulties when he remarked, "You have made believers out of many, many skeptics."

Awarded the David Packard Award for Acquisition Excellence in March 1997, the MIDS program team also garnered

THE MULTIFUNCTIONAL INFORMATION DISTRIBUTION SYSTEM LOW VOLUME TERMINAL (MIDS-LVT). A TACTICAL, SECURE, JAM-RESISTANT VOICE AND DATA COMMUNICATIONS SYSTEM, THE MIDS-LVT IS FULLY INTEROPERABLE WITH THE EARLIER LINK-16 SYSTEM, JTIDS.

a Department of Defense Value Engineering Award in May 1997.

In the Beginning

How do you merge representatives from five nations, composed of officers and civilians from those five nations, eventually representing 15 military Services, a U.S. prime contractor, and an international industrial team consisting of six companies into a coherent, cohesive, cooperative international program team?

That was the formidable challenge facing Navy Capt. Dave Fitch and his senior leadership team back in September 1993 when he was first named MIDS Program Manager.

First conceptualized and supported by Nunn-Warner cooperative funding during the late 1980s, DoD viewed MIDS as an opportunity to enhance interoperability and the coalition warfare capability of the United States and its closest allies, and to strengthen transatlantic political and industrial ties. Toward that end, an

industrial team representing eight nations was assembled between 1987 and 1989 that explored the technical implementation and concepts.

Subsequently, between 1990 and 1993, before DoD established a separate International Program Office (IPO) for the MIDS international engineering, manufacturing, and development phase, the nations separately funded risk-reduction activities of their industries toward the design that had been conceptualized in the project definition phase.

Among the nations, the desire to participate in the MIDS Program was always there. However, each nation had its own special definition of best value, and each had to consider the cost they would bear.



JOHN DESALME, FORMER PROGRAM EXECUTIVE OFFICER, SPACE, COMMUNICATIONS AND SENSORS (PEO-SCS) DISCUSSES THE MIDS PROGRAM WITH ACTING ASSISTANT SECRETARY OF DEFENSE (C³I), ANTHONY "TONY" VALLETTA. DESALME WAS THE PEO-SCS, AND CHAIR OF THE INTERNATIONAL STEERING COMMITTEE UNTIL AUGUST 1997.

Good Help Means Everything

In taking on the tremendous challenge of managing the MIDS IPO, Fitch did not have to go it alone. He is also supported by a strong international leadership team: a Deputy Program Manager from France; a Senior Technical Officer from the United States; and Division Chiefs from Italy, Germany, and Spain who manage MIDS Engineering and Manufacturing Development (EMD),

including the day-to-day technical, program control, and customer liaison functions.

An outstanding team of European and U.S. personnel from the five participating nations – France, Germany, Italy, Spain, and the United States – make up the MIDS International Program Office (IPO). Collectively, their significant technical, acquisition, business, and operational military experience represents the finest professional expertise of 15 separate military Services of the five MIDS nations.

Oversight

An international agreement among the five participating nations calls for an International Steering Committee for program oversight. Currently, Bill Eaton, the Program Executive Officer, Space, Communications and Sensors (PEO-SCS) is the U.S. member of the Steering Committee and also serves as Chair.¹ Fitch, as program manager, reports to the Steering Committee. Also by international agreement, Eaton is responsible for all host nation responsibilities, including oversight and management of program contracts.

Because MIDS is a major ACAT ID U.S. acquisition program, Fitch also reports to the Under Secretary of Defense (Acquisition and Technology) through the PEO-SCS, and the Assistant Secretary of the Navy (Research, Development, and Acquisition). U.S. joint acquisition

MIDS PROGRAM — FROM INCEPTION TO DELIVERY

Date	Key Event
September 1993	Establishment of the MIDS Program Office.
December 1993	Milestone II DAB.
February 1994	Supplement 2 to International Agreement signed.
March 1994	EMD contract awarded to MIDSCO, Inc.
June 1994	Restructuring of EMD Program approved.
August 1994	Major contract modification to implement open systems architecture, commercial/industrial parts, IPTs, and other Acquisition Reform initiatives.
August 1995	Major contract modification for first variant of MIDS terminal, tailored to requirements of U.S. Army.
September 1996	Competitive contract awarded to U.S. Joint Venture with European industry partners for another MIDS variant with reduced functionality for U.S. Air Force F-15s.
August – October 1997	OTAs awarded to four U.S. and European teams to prepare for competitive MIDS production.
September 1997	MIDS IPO relocated to San Diego, Calif.
February 1998	First EMD terminal delivered on Feb. 4, 1998.
March 1998	MIDS variant flew in an F-15 avionics suite aboard a C-130, March 4, 1998.
March 1998	MIDS Rollout Ceremony, Pentagon, March 11, 1998.

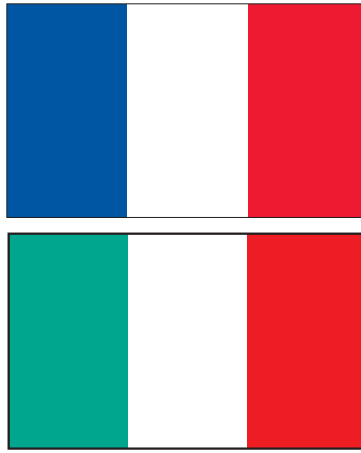
management is accomplished by U.S. Army, U.S. Navy, U.S. Air Force, and Joint Chiefs of Staff participation in a tri-Service Program Executive Council, now chaired by PEO-SCS.

Fitch and the IPO enjoy strong support from the Space and Naval Warfare Systems team, comprised of the PEO-SCS and the Space and Naval Warfare Systems Command (SPAWAR). Support spans the areas of contracting, accounting, logistics, financial management, security, legal, and public affairs. The Defense Contract Management Command (DCMC) also provides technical and management support, along with MITRE Corporation, Draper Laboratory, and various government engineering, logistics, and test centers. Together, the IPO, government and contractor support organizations, and the MIDS industry partners, comprise the MIDS Program team.

Organized into functional and multidisciplinary Integrated Product Teams (IPT), the IPTs are responsible for the technical, cost, and schedule performance of their respective areas of responsibility, using earned value management principles. Further, a government and industry systems team functions to integrate and coordinate the efforts of the IPTs.

Importance of International Cooperation

On Dec. 10, 1993, the MIDS program went to the Defense Acquisition Board (DAB) for Milestone II approval. The Acquisition Decision Memorandum (ADM) of Dec. 17, signed by R. Noel Longuemare, [former] Principal Deputy Under Secretary of Defense (Acquisition and Technology), directed "Go forward; execute the international agreement; award the contract that has been negotiated; concurrently study the technology and the architecture being used for the terminal to identify ways to improve technology insertion, to reduce cost and reduce schedule of the program; and utilize an international process action team."² By separate letters, the national armament directors of the four European MIDS nations were asked to support the proposed effort.



"France, Italy, Germany, Spain, and the United States are using joint programs such as the MIDS to build a transatlantic partnership based on common security interests and joint military requirements."

*—Dr. Jacques S. Gansler
USD(A&T)*



The MIDS program team began work shortly before Christmas 1993, pulling together the structure and plan for the international process action team, involving both government and industry. The objective was to fundamentally rethink the entire program. Specifically, the team looked at the technology and architecture that had been planned previously, with the aim of implementing change, where necessary, to facilitate technology insertion throughout the life cycle, and reduce cost and schedule.

The International Steering Committee commenced meeting in early 1994 with the dual focus of initiating EMD and restructuring the program. Between January and March, 1994, the United States hosted a number of International Steering Committee meetings in Washington, D.C. Initially, the Steering Committee anticipated meeting, about twice a year for overall management of the program; in this case, for a time, they met to rethink and restructure the program, almost on an every-month or six-week basis.

In addition to designating host nation and contracting responsibilities, the international agreement defined five primary objectives of the MIDS Program:

- The MIDS program team was to design, develop, manufacture, and test a terminal that meets the technical requirements of Link-16 implementation and achieves interoperability with JTIDS.
- The MIDS terminal would be designed and manufactured to achieve the best price.
- The MIDS team would include technology transfer in their program strategy to ensure sharing of technology among the nations.
- The participating nations would perform work commensurate or roughly equivalent to their cost share.
- The nations would share what are termed common costs, in a ratio defined by the international agreement.

To achieve the objectives in a collaborative environment, the international agreement

called for cooperative leadership of the program. The cooperative leadership begins with the International Steering Committee, in which everyone has an equal vote and all decisions must be unanimous.

Also by international agreement, the United States provided about half of the manpower in the International Program Office during EMD. Typical European representation during the EMD phase of the program has been one team member from Spain; as high as six from France; as high as four from Italy; and as high as four from Germany.

Sharing was an important factor in the success of the program: sharing of leadership on the Steering Committee; sharing of leadership of program direction in the senior leadership ranks of the IPO; and on the industrial side, sharing of information and technology between all the nations so that every aspect of the program was truly collaborative.

A Word About the Prime Contractor

Shortly after the Milestone II DAB in December 1993, the U.S. Navy, on behalf of France, Germany, Italy, Spain, and the United States awarded the contract for the engineering and manufacturing development of the MIDS-Low Volume Terminal (MIDS-LVT) to MIDSCO, Inc., a U.S.-chartered, international joint venture corporation located in Fairfield, N.J.

Incorporated back in late 1989, MIDSCO, as the prime contractor, has a multinational management and technical staff that includes professionals from its five member (shareholder) companies: ENOSA; GEC-Marconi Hazeltine; MID-SpA [formerly Italtel]; Siemens; and Thomson, CSF. John Sputz, as President, MIDSCO Inc., is on the MIDSCO Board of Directors, which is made up of



JOINED BY ALLIED DEFENSE OFFICIALS FROM THE OTHER FOUR NATIONS INVOLVED IN THE DEVELOPMENT OF MIDS — FRANCE, GERMANY, ITALY, AND SPAIN — USD(A&T), DR. JACQUES S. GANSLER ACCEPTED INITIAL DELIVERY OF THE MIDS LOW VOLUME TERMINAL (MIDS-LVT) FROM JOHN SPUTZ, PRESIDENT, MIDSCO, INC., AT A PENTAGON CEREMONY ON MARCH 11. PICUTURED FROM LEFT: SPUTZ; BENOIT LAURENSOU, FRANCE; ANGEL JARA, SPAIN; MAJ. GEN. POMPONI, ITALY; GANSLER; WINFRIED WECKWERTH, GERMANY.

a vice president from each of the five companies.

MIDSCO's No. 1 purpose was to design, manufacture, and prove a state-of-the-art command and control system — MIDS — that would be fully interoperable with the earlier Link-16 system, the JTIDS. MIDS, the next generation of Link-16 terminals, however, would also feature new Link-16 capabilities for multinational and multiplatform interoperability in support of coalition forces.

Warren Nadler, as the program manager and chief operating officer of MIDSCO, oversees day-to-day management of the program. In an arrangement similar to Fitch reporting to the International Steering Committee, Nadler reports to the MIDSCO Board of Directors for the execution of industry responsibilities and interests.

Each of the companies subcontracted to MIDSCO is represented on the Board of Directors and has a part of the work and responsibility for the program contract. Nadler, on the one hand, reports to the MIDSCO shareholders; on the other hand, he also ensures that the terms of formal subcontracts are being met. Fitch credits Nadler

with exceptional effectiveness in managing a very complex and challenging development contract and industrial organization. Currently, the value of the contract is over \$400 million.

Challenges... and There Were Many

Sometimes it's the seemingly little things that present the biggest challenges.

Vision. One of the earliest challenges for the MIDS program team and the International Steering Committee was developing a clear, unified vision of the program. The International Steering Committee achieved consensus on a unified vision during the period of the restructuring effort, and the vision has guided the program ever since: "*MIDS will be the Link-16 terminal of choice for all potential customers.*"

Fitch, who often briefs MIDS at the Defense Systems Management College (DSMC), displays the MIDS vision and picture of the MIDS-LVT on a slide. Across the bottom of the slide is his personal insight, borrowed from the Kevin Costner film, *Field of Dreams*: "Build It and They Will Come."

Personnel Resources. At the start of MIDS development, Fitch managed the program with a team of U.S. and European professionals. The European nations hesitated to post the full complement of permanent personnel until the program actually started. Once that date

became known, the nations quickly assigned the remainder of the program office staff.

Throughout his entire five years as program manager, Fitch has adapted to and adjusted for a high turnover of both European and U.S. personnel as the result of military rotations and a relocation of the office from Washington, D.C., to San Diego, Calif., in 1997. Only one member of the original IPO remains, and many positions have been vacated and filled twice.

Industrial Structure. The international agreement calls for an industrial structure that benefits all the participating nations. According to the agreement, a sole-source contract would be awarded to MIDSCO. Significant work had been accomplished in advance of EMD by the Navy program office responsible for JTIDS integration into Navy platforms.

Led by Navy Capt. Dave Ahern and Dr. Ken McCloud, a comprehensive contract had been negotiated with MIDSCO. Also, industry had allocated the work consistent with the technical strengths of the subcontractors, and in proportion to the nations' cost shares. The challenge became the restructuring of the program, the terminal architecture, and the contract, including work share, to comply with the ADM guidance.

Unique Financial Management Processes. The MIDS program required establishing unique processes for financial management and even payment of program expenditures. To manage the process, Fitch has a financial management board, with senior national representatives from the IPO. Together the IPO, along with the staff of the Program Executive Office, and Space and Naval Warfare Systems Command (SPAWAR) accounting personnel, manage an international banking network.

The banking network reports deposits made by the European nations and makes electronic transfers of funds,



ACTING ASSISTANT SECRETARY OF DEFENSE FOR COMMAND, CONTROL, COMMUNICATIONS, AND INTELLIGENCE (C³I), ANTHONY "TONY" VALLETTA. AS THE "OVERSIGHT GURU" FOR THE MIDS PROGRAM, VALLETTA SAID THAT FITCH AND THE MIDS PROGRAM TEAM DID WHAT WAS BELIEVED TO BE THE IMPOSSIBLE: TURNING A MAJOR PROGRAM AROUND OVERNIGHT — "ACTUALLY UPSIDE DOWN" — TO IMPLEMENT OPEN SYSTEMS ARCHITECTURE AND COMPREHENSIVE ACQUISITION REFORM.

"The United States and this Department consider the MIDS program to be not only a model for international cooperation, but ultimately a model for the future, for all programs that we do on an international basis."

*—Anthony "Tony" Valletta
Acting ASD(C³I)*

including all the appropriate levels of checks and balances to prevent fraud, waste, or abuse. In effect, the network allows member nations to deposit their national currencies in their own banks; thus, their currencies are not routinely exchanged and, in fact, do not go through exchanges except, as necessary, to pay program bills. France pays as much of her obligated share as possible in French francs; and Germany pays, to the maximum extent feasible, in Deutsche marks.

For the most part, the Financial Management Board targets payments to each country's currency. The U.S. Treasury pays all the U.S. bills for the program in dollars. Fitch says that program funding by the nations has been timely and consistent with the needs of the program and the international agreement.

International Working Groups. Because the MIDS program team developed MIDS as a product for multiple customers (now approaching 20), the IPO has used international working groups to resolve issues with the program's Interface Control Document, and more recently, they created an international test and interoperability working group. Currently, the primary aircraft customers for the MIDS-LVT are the Eurofighter, EF 2000; the F/A-18; the French Rafale; and the F-16.³ Also, a version of MIDS is now being procured for the F-15.

Acquisition Reform. At the beginning of the EMD program, DoD senior acquisition leaders challenged the MIDS program team to go out — concurrent with the execution of the program and an ongoing attempt by the team to accelerate initial program deliveries by up to a year — and completely revamp the terminal architecture to implement open standards and industrial parts; and to showcase other Acquisition Reform initiatives such as Cost As an Independent Variable, Integrated Product Teams, and the Single Process Initiative.

Fitch notes that the IPO has expanded the program's application of Acquisition Reform principles in every new program contract and activity. The most recent

was competitive award of four Other Transaction Agreements (OTA) to facilitate transition from EMD into competitive production.

Keep International Agreement Intact.

Throughout the numerous changes of scope and direction of the program, the program team kept the fabric of the international cooperative agreement in place. This was evident in European acceptance of a separate procurement (managed by the IPO) for the U.S. Air Force. As a result of this procurement, the IPO benefited from the infusion of five U.S. Air Force officers. The U.S. Army is also represented in the IPO.

Innovative Logistics Support. As the program team went out and worked the Air Force procurement, they attempted to take another step down the road of Acquisition Reform. An example is the innovative logistics support requirements of the contract. The program team negotiated contractor logistics support provisions where the contractor will be paid for availability of the system on the F-15, not repairs to the terminal. As a result, the contractor is “incentivized” to achieve the highest possible availability, and to avoid the cost of repairing terminals.

Other Acquisition Reform initiatives demonstrated in the solicitation included a requirement for use of an open systems architecture, oral presentations, and an innovative approach to evaluate past performance that Fitch subsequently briefed to the head of the Office of Federal Procurement Policy (OFPP).

Decision Making Authority. Another challenge confronting the IPO leadership team at the start of EMD was the issue of authority to make decisions. Fitch wanted to push the authority to the lowest possible level, commensurate with effective program control and management. Guidelines were agreed upon and incorporated into a program



THREE OF THE MANY KEY MANAGERS OF THE MIDS PROGRAM — NAVY CAPT. DAVE FITCH, MIDS PROGRAM MANAGER; USD(A&T), DR. JACQUES S. GANSLER; JOHN SPUTZ, PRESIDENT, MIDSCO, INC.

“It’s a challenge to manage with just the right mix of cooperation and authority. There’s a team commitment to maintain a professional and to some degree, a personal rapport, among all the members.”

*—Navy Capt. Dave Fitch
MIDS Program Manager*

management plan that was approved by the International Steering Committee.

“It’s a challenge,” says Fitch, “to manage with just the right mix of cooperation and authority. There’s a team commitment to maintain a professional and to some degree, a personal rapport, among all the members.”

Lessons Learned? Of Course!

Although Fitch is admittedly hesitant to give advice to other program managers,

based on hindsight he does point out several principles of effective leadership and management that have been critical in MIDS.

Congruence of Objectives.

When the MIDS program team first got together at EMD with the International Steering Committee for the first time at the International Program Office, a wide diversity of objectives and interests surfaced. Everybody

was not aligned, going in the same direction on the same day. How could they? They all came with national interests, different backgrounds, and experiences. Setting aside their differences, the program team worked together cooperatively, and ultimately defined common goals and objectives, which were then reflected in the Steering Committee vision.

A congruence of, and commitment to, common objectives has facilitated free and open discussion of specific national concerns on a day-to-day basis.

Data-Driven Decisions. In a program where a diversity of interests and objectives exists, it’s very important that decisions be data driven and as timely as possible. What that really means, says Fitch, is that you need to have a management objective to know the actual cost, schedule, and technical status of the program at any time.

Without a realistic understanding of the cost, schedule, and technical aspects of the program, fused together in one “big picture,” it’s difficult to make data-driven decisions (or at least to make *good* data-driven decisions). And when you make decisions that are based upon data, the opportunity for misinterpretation or questioning of motives is reduced.

Trust and Confidence. In an international program, Fitch believes that you cannot underestimate the importance of

trust and confidence in every aspect of the program. He refers to a survey conducted by DSMC's Advanced International Management Workshop Course Director, Richard Kwatnoski. Targeted at U.S. program managers and other acquisition workforce personnel involved in international programs as well as personnel offshore, one question on the survey asked respondents to name the most important attributes of a successful international cooperative program. *Every* non-U.S. respondent listed trust as one of the top three attributes. Conversely, trust did not even appear as an issue in any of the U.S. responses.

Fitch believes the strong support of senior DoD leadership has been key to building European confidence that the United States is committed to cooperative development and production of MIDS. The United States has maintained its commitment to international cooperative development, and it has transitioned MIDS into a joint U.S. program.

Exceptional Team Support. "The MIDS team," said Fitch, "has benefited from absolutely superb support from the Office of the Secretary of Defense (OSD) and Navy leadership. There has been an unwavering commitment to support and meet all challenges of the program.

"We also had exceptional support from DCMC; DSMC; SPAWAR; the Navy International Program Office; the National Security Agency; the Navy's Best Manufacturing Practices team; Navy, Army, and Air Force program offices and field and test activities; and in industry, MITRE and Draper."

Relationship With Contractor. The issue of maintaining government responsibility, but not having an adversarial relationship with the contractor is also important. The contractor has to meet the objectives of the contract and be held to the terms obligated in the contract. On the other hand, there needs to be an effort on the part of the government to work with the contractor and implement the requirements in a manner that has the potential to minimize the cost.



JOHN SPUTZ, PRESIDENT, MIDSCO, INC. IN SPITE OF THE MANY NAYSAYERS AND SKEPTICS WHO SAID MIDS COULD NEVER BE DONE AS AN INTERNATIONAL PROGRAM, SPUTZ SAID THAT RESTRUCTURING THE PROGRAM AS A DOMESTIC VERSUS INTERNATIONAL PROGRAM WAS NEVER AN OPTION.

Delivery Day

Joined by allied defense officials from the other four nations involved in the development of MIDS, Under Secretary of Defense for Acquisition and Technology, Dr. Jacques S. Gansler accepted initial delivery of the MIDS Low Volume Terminal (MIDS-LVT) from John Sputz, President, MIDSCO, Inc., at a Pentagon ceremony on March 11, 1998.

Also attending the ceremony were members of the MIDS program team; allied defense and industry officials; representatives from the allied Ministries of Defense; representatives of the Joint Staff; the Deputy Under Secretary of Defense (International and Commercial Programs); Service, Agency, and major command senior acquisition leaders; and members of the MIDS International Steering Committee (who changed the site of their weekly meeting from Madrid,

Spain, to Washington, D.C., expressly to attend the ceremony).

A Word From the C³I

Welcoming those attending, Anthony "Tony" Valletta, the Pentagon's Acting Assistant Secretary of Defense for C³I, spoke of the significance of the MIDS rollout to the United States and its allies. As the "oversight guru" for the MIDS Program, he talked about the many nights and weekends spent with Capt. Fitch and the team doing what was believed to be the impossible: turning a major program around overnight — "actually upside down" — to implement open systems architecture and comprehensive Acquisition Reform.

Valletta's remarks referred to the major restructuring of the program at the start of EMD — concurrent with program start-up and EMD contract award. Originally, the program team was going to deliver the first flyable terminals approximately 50 months after contract award. When DoD asked the team to project the shortest time that they believed the program could be done, there was a lot of negotiation on both sides. There was political pressure and several other factors that played in the equation. Eventually, the two sides compromised on a goal of 38 months.

At the same time the program team was executing the contract, they were told to go in and completely lay out a new, open systems architecture. The team's first estimate for laying in the new architecture was around six months. It eventually took them 12 months to identify all the details and completely implement an open systems architecture where none had previously existed.

Instead of being able to "take off" at EMD with the design for which they had already awarded the contract, the program team regrouped and spent a large portion of their efforts over the next 12 months identifying how they were going to change the original design.

Despite the extended period for detailed engineering of the new architecture, and significant changes to program scope (Army and Air Force versions of MIDS added), the program still achieved a

delivery that was six months ahead of the schedule prepared for the Milestone II DAB.

Said Fitch, “[MIDS] is an example of a program team accepting and managing risk. We accepted the challenge of changing the terminal architecture, using industrial parts, and accelerating the schedule for delivery of EMD terminals. We weren’t ‘shot at the break of dawn’ when we missed our goal of 12 months’

acceleration; instead, we were recognized and rewarded for the acceleration we did achieve, as well as the other things we accomplished. I think this is a positive message for DoD program managers.”

Speaking to the MIDS international partners and representatives from their Ministries of Defense, Valletta congratulated them and said that “The United States and this Department consider the MIDS program to be not only a model for international cooperation, but ultimately a model for the future, for all programs that we do on an international basis. My success, your success, the Department’s success, your nation’s success, and the five industries of our nations have made this happen.”

Reading aloud two letters — one from Dr. Paul Kaminski, former Under Secretary of Defense (Acquisition and Technology) and the other from R. Noel Longuemare, Kaminski’s Principal Deputy — Valletta stated that although they couldn’t be at the ceremony due to prior commitments, “These two individuals helped us get to where we are today.”

A Word From the Prime Contractor

After thanking those in attendance and DoD and Navy leadership for their support, the Navy PEO, Bill Eaton introduced John Sputz, the President of MIDSCO and MIDS prime contractor.

Sputz emphasized that MIDS was an accomplishment on the part of many, many people, who overcame many hurdles,



U.S. NAVY MULTIFUNCTIONAL INFORMATION DISTRIBUTION SYSTEM (MIDS) INTERNATIONAL PROGRAM OFFICE (COMMUNICATIONS-COMPUTER SYSTEMS INTEGRATED PRODUCT TEAM). THE TEAM WAS AWARDED THE DAVID PACKARD EXCELLENCE IN ACQUISITION AWARD AT A PENTAGON CEREMONY ON MARCH 17, 1997.

“Go forward; execute the international agreement; award the contract that has been negotiated; concurrently study the technology and the architecture being used for the terminal to identify ways to improve technology insertion, to reduce cost and reduce schedule of the program; and utilize an international process action team.”

**—R. Noel Longuemare
Former Principal Deputy,
USD(A&T)**

including the naysayers, who said the United States should do the program themselves, transfer it overseas and in the process, make some money. Many were against international co-development of MIDS and believed the United States should take the easy road and do the program themselves because of the scope and management complexity of international programs.

How-ever, the program team kept a co-development going, according to Sputz; restructuring the program as a domestic versus international program was *never* an option for a very important reason.

International development of MIDS greatly expanded the implementation of Link-16 in our allies’ forces. In essence, MIDS is a “force multiplier.” Because maintaining the peace in the 21st century will most likely be done with coalition forces, a common control and communications system like Link-16 and MIDS will allow the highest level of integration and communication among coalition forces. The language that will integrate sensor information, the status of forces, and commands for engagement of forces, irrespective of nationality, will be Link-16 digital information piped into everything from cockpits to command centers.

Providing the attendees an update on when and how MIDS will be produced in the future, Sputz stated that in the current development phase, the participant countries have funded 108 EMD terminals and associated support equipment. MIDS customers include the European EF 2000, the French Rafaele, and the U.S. F/A-18, F-16, and F-15. International production, said Sputz, is expected to exceed 5,000 terminals. Earlier program deliveries included 11 MIDS simulators that are being used to integrate the capability into an array of combat systems.

Sputz said that the first two terminals, delivered in February — one in the United States and the other in Europe — were already operating in integration facilities. Said Sputz, “Delivering both here and across the pond concurrently is a big, big step.”

He praised the farsighted and bold move by the MIDS program team and its oversight organizations to redirect the MIDS Program into an open systems architecture. “To show you the success of that bold move, last week we flew a MIDS Fighter Data Link, which is a derivative of the MIDS terminal. This could only have been accomplished with an open architecture box such as we now have; we pulled some cards out, put some other cards in, made it interoperable for an F-15, and flew it almost concurrently with the deliveries of the MIDS [EMD] terminals.”

Sputz spoke of one of his first conversations with Dr. Gansler, shortly after his appointment as Under Secretary of Defense (Acquisition and Technology) in December 1997. They were discussing the MIDS Program and some of the co-development aspects, such as crypto or COMSEC, when Gansler surprised him with a question: “Why were you successful? Why is this program so much more successful than some of the other programs where we [DoD] attempted to do the same thing?”

Sputz answered him by repeating a word used by Paul Kaminski: *persistence*. “I think the differentiator is persistence. We just simply did not give up...persistence on the part of the DoD folks, the Steering Committee folks, the PEO, certainly the IPO, the leadership in the IPO, MIDSCO, and its five contractors. No one said, ‘Hey, it’s too hard to do and we’re not going to do it.’ We just simply didn’t give up. Yes, persistence, dedication, I think made the difference.”

A Collective Acceptance

Under Secretary of Defense (Acquisition and Technology), Dr. Jacques S. Gansler called for representatives of the participant nations — “our partners” — to join him at the podium in accepting the



BILL EATON, THE PROGRAM EXECUTIVE OFFICER, SPACE COMMUNICATIONS AND SENSORS (PEO-SCS) IS THE U.S. MEMBER OF THE INTERNATIONAL STEERING COMMITTEE AND ALSO SERVES AS CHAIR. BY INTERNATIONAL AGREEMENT, EATON IS RESPONSIBLE FOR ALL HOST NATION RESPONSIBILITIES, INCLUDING OVERSIGHT AND MANAGEMENT OF PROGRAM CONTRACTS.

MIDS-LVT from John Sputz, President of MIDSCO. (Gansler noted that he and Sputz had worked together 35 years ago in New Jersey.)

Gansler spoke of the many new threats faced by the United States and its allies in the 21st century and the importance of MIDS in countering those threats. “France, Italy, Germany, Spain, and the United States are using joint programs such as the MIDS to build a transatlantic partnership based on common security interests and joint military requirements.

“MIDS is the first successful major cooperative development in the military electronics field, the first of what I hope will be many, many more.

“MIDS fits the requirements for interoperable communications, IFF, and air defense equipment. Actually, this is the third generation Link-16 terminal to be

fielded with our allies. And it’s compatible with and interoperable with all of the previously fielded Link-16 terminals.

“The MIDS Program, which is part of our broad effort to share technology and intelligence, can help our joint partnership to shape the European defense electronics base, so that it can remain an equal partner in the transatlantic cooperative environment...That’s why I personally think today’s ceremony is so important.”

A Word From the Program Manager

Navy Capt. Dave Fitch, referring to the MIDS Program team as a government-industry team that transcends the Program Office, thanked everyone participating in or associated with the MIDS Program for their very strong support, including the Defense Contract Management Command, the surveillance and the engineering technical staffs of five nations, and the leadership of the five participant nations.

He believes the success of the MIDS Program team is attributable to the sharing of common objectives and a very high level of communication and cooperation. The challenge of executing a major acquisition program involving an international, transatlantic development and manufacturing facility has been overcome with strong leadership in each participant nation’s Ministry of Defense, the Department of Defense, the companies that comprise the MIDS industry team, and the commitment of every member of the MIDS Program team.

In closing the presentation ceremony, Fitch thanked all the attendees for “your most valuable resource — your time — to come out and recognize the accomplishment of this team.” He went on to say that “Any recognition given the MIDS program team is based on the accomplishments of the team and *no one individual*.”

Said Fitch, “We realize that this is the first step of many...and it’s our commitment to you to continue to make the

program successful, transition from engineering, manufacturing, and development into cooperative production, and ultimately set the way in standards.”

Editor’s Note: Fitch is a graduate of PMC 92-2, DSMC. He was certified as a Project Management Professional in 1993 by the Project Management Institute, and is DAWIA-certified in Program Man-

agement at Level III. He is a frequent lecturer and speaker at DSMC. After nearly five years as MIDS PM, he will turn over the helm of the program on May 28, and retire later this summer.

ENDNOTES

1. John DeSalme was the first U.S. member of the MIDS International Steering Committee. To date, the U.S. member

has been elected by the members of the Steering Committee as Chair.

2. In 1993, before the advent and institutionalization of Acquisition Reform initiatives, there were no Integrated Product Teams (IPT) — only Process Action Teams (PAT).

3. The French Rafaele is an aircraft used by the French Air Force, Navy, and Marine Corps.

FROM ACROSS THE MILES — KAMINSKI, LONGUEMARE “WEIGH IN”

*Former Under Secretary of Defense (Acquisition and Technology),
Dr. Paul Kaminski to the MIDS International Program Office:*



Please accept my congratulations and thanks at this ceremony to commemorate the first terminal delivery of the Multifunctional Information Distribution System. I'm very sorry I cannot be with you today, but a longstanding commitment places me on the other coast. I am with you in spirit, and I commend you for your outstanding work. It was my great honor and pleasure to have served with you. You are delivering on your commitment and leading the way for what I predict will be one of the most important and significant international cooperative programs in our lifetime. But keep on pushing, leading the way, because we won't get there without your continued dedication and persistence.

“Bravo Zulu”

Paul Kaminski
Paul Kaminski

*Former Principal Deputy Under Secretary of Defense
(Acquisition and Technology),
R. Noel Longuemare to the MIDS International Program Office:*

To the MIDS team — congratulations on today's rollout. You have made believers out of many, many skeptics. I'm just sorry I cannot be with you today. I well remember the MIDS DAB — that's the Defense Acquisition Board — back in December of 1994, or thereabout. It was the first one that I chaired. At that meeting we set a goal for you to come back in six months with a new design that cut the cost in half, introduced new technology and packaging concepts, and incorporated a modular add-or-subtract-feature capability. Most importantly, this was to be done in cooperation with our international partners. This was a tall order, especially in so short a time.

Well, you have more than done this. You have come up with an open systems MIDS design and a program structure that, in many ways, is a standards setter on how electronics should be designed and how international programs should be done. Today's rollout is proof of your success and great effort. Please accept my congratulations for a job well done. It has been a real privilege for me to work with you, and I wish you continuing success as you push MIDS to reach its full potential in the future.

Sincerely,

Noel Longuemare
Noel Longuemare

